

ABSTRACT OF THE DISCLOSURE

A liquid crystal display panel including first and second substrates, and a FLC layer interposed therebetween. A small quantity of additives are mixed in the FLC layer, without changing the electrical or chemical properties of the FLC. Under a proper temperature and an electric field, the FLC layer is ripened sufficiently. Thereafter, the FLC is exposed to light such that polymer networks are formed in the FLC layer due to the polymerization by the additives. The polymer networks connect with each other across molecular layers in the FLC such that the molecules of the FLC are stabilized in proper orientations and maintain their molecular layer structure regardless of the temperature variance. And, the diffraction grating becomes stable regardless of the temperature variance, and fast response time and good gray scale are achieved.